

24. (New) A method of producing a transgenic mouse comprising a disruption in an endogenous DEZ receptor gene, the method comprising:

- AI
Canceled*
- a. introducing a DEZ receptor gene targeting construct into a murine embryonic stem cell;
 - b. introducing the murine embryonic stem cell into a blastocyst;
 - c. implanting the resulting blastocyst into a pseudopregnant mouse, wherein the pseudopregnant mouse gives birth to a chimeric mouse; and
 - d. breeding the chimeric mouse to produce the transgenic mouse, wherein where the disruption is homozygous, the transgenic mouse lacks production of functional DEZ receptor protein and exhibits decreased agility or coordination, relative to a wild-type mouse.

25. (New) The transgenic mouse produced by the method of claim 24.

26. (New) A targeting construct comprising:

- a. a first polynucleotide sequence homologous to at least a first portion of an endogenous DEZ receptor gene;
- b. a second polynucleotide sequence homologous to at least a second portion of the endogenous DEZ receptor gene; and
- c. a selectable marker gene located between the first and second polynucleotide sequences;

wherein the targeting construct, when introduced into a murine embryonic stem cell, produces a transgenic mouse comprising a disruption in the endogenous DEZ receptor gene, wherein where the disruption is homozygous, the transgenic mouse lacks production of functional DEZ receptor protein and exhibits decreased agility or coordination, relative to a wild-type mouse.

27. (New) A murine embryonic stem cell comprising a disruption in an endogenous DEZ receptor gene, the disruption produced using the targeting construct of claim 26.

REMARKS

I. Amendments

Claims 1-10 and 17-19 have been canceled. Claims 21-27 have been added. The newly added claims do not add or constitute new matter, and are completely supported by the application